



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/780,375	02/12/2001	Christoph Hauger	00014	7035

7590 12/29/2003

Walter Ottesen  
Patent Attorney  
P.O. Box 4026  
Gaithersburg, MD 20885-4026

EXAMINER

FINEMAN, LEE A

ART UNIT	PAPER NUMBER
----------	--------------

2872

DATE MAILED: 12/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/780,375

Applicant(s)

HAUGER ET AL.

Examiner

Lee Fineman

Art Unit

2872

AW

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-4, 8, 9 and 12-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 8, 9 and 12-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 Feb 2001 and 06 Oct 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 15.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

This Office Action is in response to an amendment filed 6 October 2003 in paper number 17 in which claim 12 was amended, claim 14 was added and claims 5-7 and 11 were cancelled. Claims 1-4, 8-9 and 12-14 are pending.

#### ***Drawings***

1. The formal drawing for fig. 7 was received on 6 October 2003. This drawing is acceptable.

#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zonneveld in view of Lytle, U.S. Patent No. 4,240,701.

Regarding claims 1 and 4, Zonneveld discloses a surgical microscope (fig. 1) with a viewing unit (3) for viewing an object (20) and defining a viewing beam path (fig. 1); an image projection module (33) for inputting image data into the viewing unit (column 6, lines 6-16), including an image display unit (34 and 35) for displaying the image data; and said image projection module includes a beam splitter (37 and 38, column 6, lines 32-65) mounted in said

Art Unit: 2872

viewing beam path. Zonneveld is silent as to the imaging optics for projecting the image, specifically said image projection module including a first and second plano-convex lens, a plano-concave lens, and a concave-convex lens, mounted downstream of said image display unit and being arranged between said image display unit and said beam splitter. Lytle teaches a projection lens assembly (fig. 1) with a first (12) and second (13) plano-convex lens, a plano-concave lens (14), and a concave-convex lens (15). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the projection lens assembly of Lytle in the system of Zonneveld to provide a simple projection assembly and save money by using inexpensive plastic lenses (column 1, lines 28-35).

Regarding claim 2, Zonneveld in view of Lytle disclose the claimed invention except for the ratio of said first focal length and said second focal length being within a range from 1.9 to 2.5. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have focal lengths within the claimed ratio, since it is been held that discovering an optimum value of a result effective variable involves only routine skill in the art. One would have been motivated to adjust the focal lengths for the purpose of adjusting the size/magnification of the projected image. *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977) See also *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claim 14, Zonneveld in view of Lytle further disclose said image projection module including a Galileo system comprising a diverging lens (14; negative lens, Lytle) and a converging lens (12 or 15; positive lens, Lytle) so as to permit said image display unit to be optimally coupled into said viewing beam path (column 3, lines 39-52, Lytle).

Art Unit: 2872

4. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zonneveld in view of Lytle as applied to claim 1, and further in view of Ernstoff et al., U.S. Patent No. 4,090,219.

Regarding claims 8-9, Zonneveld in view of Lytle as applied to claim 1 discloses the claimed invention except the image display unit including a reflection display driven at a clock frequency and illuminated sequentially with different colors as a function of time; wherein said image display unit includes a rotatably mounted filter wheel for illuminating said reflection display; and a device for synchronizing the rotation of said filter wheel to said clock frequency of said reflection display. Ernstoff et al. teaches in fig. 8, a reflection display (310, column 2, lines 57-58) driven at a clock frequency (column 8, lines 65-66) and illuminated sequentially with different colors as a function of time (column 8, lines 51-56); wherein said image display unit includes a rotatably mounted filter wheel (302; Ernstoff) for illuminating said reflection display (fig. 8; Ernstoff); and a device for synchronizing the rotation of said filter wheel to said clock frequency of said reflection display (322 and 306; Ernstoff). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the reflection display of Ernstoff et al. as the display means in the system of Zonneveld in view of Lytle to make the system more compact.

5. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zonneveld in view of Ernstoff et al.

Zonneveld discloses a surgical microscope (fig. 1) with a viewing unit (3) for viewing an object (20) and defining a viewing beam path (fig.1); an image projection module (33) for

Art Unit: 2872

inputting image data into the viewing unit (column 6, lines 6-16), including an image display unit (34 and 35) for displaying the image data; an image recording module (40 and 41) for recording an image of said object supplied by said viewing unit (column 6, lines 43-56) including an image sensor (40) mounted to receive said image data from said image projection module; an image recording beam splitter (37 and 38, column 6, lines 32-65) for directing said image of the object onto said image sensor (fig. 1); and a recording device (41) connected to said image sensor for recording said image data and said image of said object.

Zonneveld discloses the claimed invention except for an optical device mounted in said viewing beam path for providing an image of said object to a location outside of said viewing beam path; the image recording beam splitter mounted outside of said viewing beam path for directing said image of the object onto said image sensor; and the image display unit including a reflection display and wherein a time-dependent sequential illumination of the reflection display with only a single color is improved so that the brightness of said image display unit is increased compared to a display exposed to sequential RGB illumination.

Official Notice is taken that beam splitters are well known in the art for redirecting portions of light into different beam paths. It would have been obvious to one of ordinary skill in the art at the time the invention was made to insert a beam splitter as the optical device into the viewing beam path to provide a image of the object to a location outside of said viewing beam path in order for another viewer to see the object. Further it would have been obvious to one of ordinary skill in the art at the time the invention was made to insert a beam splitter (making it the image recording beam splitter) outside the viewing path in order for another viewer to see the combined image that will be received by the image sensor. It is noted as directed by the MPEP

Art Unit: 2872

2144.03 that if the applicant does not seasonably traverse the well known statement during examination, then the object of the well known statement is taken to be admitted prior art. *In re Chevenard*, 139 F.2d 71, 60 USPQ 239 (CCPA 1943). As such, the official notice statements of the examiner are now held to be admitted prior art.

Ernststoff et al. teaches in fig. 8, a reflection display (310, column 2, lines 57-58) illuminated sequentially with a single color as a function of time (in so far as the wheel can be stopped on a single color and, inherently, if more time is spent on a single color, it will be brighter than compared to a display exposed to sequential RGB illumination). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the reflection display of Ernststoff et al. as the display means in the system of Zonneveld to be able to project more complicated data/images into the viewing and imaging paths.

### ***Response to Arguments***

6. Applicant's arguments filed 6 October 2003 have been fully considered but they are not persuasive.

Applicant argues that Lytle does not disclose a plano-concave lens. The examiner disagrees. No special definition has been afforded into the specification and Lytle clearly evidences that the definition of plano-concave is broad enough to encompass a lens structure with nominal/slight variation. See the second and third paragraphs in column 2 of Lytle where a lens surface with very slight curvature is still referred to as being planar. Applicant further argues that Lytle would generate an inferior image (diffraction pattern) as compared to the applicant, it is noted that the features upon which applicant relies (i.e., values in Tables 1 and 2) are not

Art Unit: 2872

recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

7. It is noted by the Examiner that the 112 rejection made in the previous Office Action has been withdrawn due to amendment by the Applicant.

### *Conclusion*

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lee Fineman whose telephone number is (703) 305-5414. The



Art Unit: 2872

examiner can normally be reached on Monday - Friday 7:30 - 4:00. Please note that as of 21 January 2004, the examiner's phone number will be changed to 571-272-2313.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on (703) 305-0024. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9318.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4900.



LAF

December 16, 2003



**DREW DUNN**  
**SUPERVISORY PATENT EXAMINER**